II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested. Claim 10 has been added.

Claim Rejections - 35 U.S.C. §102(b)

Claims 1, 4, 5, 6, 7, and 9 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,367,455 to Hirata et al. (Hirata).

Claims 1 and 6, the independent claims, provide for determining an opening time for said fuel injectors based upon the estimated fuel pressure Applicant asserts the Examiner has failed to meet his burden under 35 U.S.C. §102(b), in that, the Examiner offers no evidence that Hirata teaches the above-mentioned elements, specifically that the opening time is based on the estimated pressure.

With regard to claims 1 and 6, the Examiner contends that Hirata teaches "the estimated fuel pressure used to set the opening time for the injectors." For support the Examiner refers to Hirata, column 5, lines 43-58, where the only statement is that the injector timing is calculated with no indication how the timing is calculated. In further support the Examiner makes the broad statement that opening times "are always a function of pressure since the fuel amount injected is a function of pressure and opening time." The Examiner's broad statement provides no evidence that Hirata teaches or suggests the opening time based on the **estimated pressure**. For example, Hirata utilizes an air/fuel sensor 23 and likely calculates the opening times based on feedback from the air/fuel sensor 23. In addition, Hirata specifically teaches the opposite scenario; estimated pressure p_{fe} is calculated based on the valve opening time T_{inj}, this would tend to teach away from the timing being

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calculated base on the estimated pressure. Hirata thus does not teach determining the opening time of the fuel injectors based upon the estimated fuel pressure and does not teach or suggest the present invention.

With regard to claims 4 and 10, the present invention includes that the pump output is substantially constant. Hirata teaches an Electronic Fuel System where the pump output is varied to achieve a desired pressure. The Examiner contends "it is assumed the substantially constant pressure claimed is meant to be constant at the set CPU pressure." However, the system in the claims is defined as a mechanical fuel system. Accordingly one of ordinary skill in the art would interpret the substantially constant pump output with respect to a pump that is provided a substantially constant power input to produce a substantially constant flow rate. Conversely, the main goal of Hirata is to vary the flow rate by providing a variable power input to the pump.

Claim Rejections - 35 U.S.C. §103(a)

Claim 2 was rejected under 35 U..S.C. §103(a) as being unpatentable over U.S. Patent 6,367,455 to Hirata et al. (Hirata).

Claims 3 and 8 were rejected under 35 U..S.C. §103(a) as being unpatentable over U.S. Patent 6,367,455 to Hirata et al. (Hirata) in view of U.S. Patent 6,701,905 to Gaskins (Gaskins).

Claims 2, 3 and 8 depend directly on claims 1 or 6, and are, therefore, patentable for at least the reasons provided above in support of claims 1 and 6. Accordingly, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. §103(a).

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Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is respectfully requested.

Respectfully submitted,

4/1/05
Date

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